

**R E M A R K S**

Claims 34, 41, 42, 48-52, and 56-61 are pending in the present application. Claim 51 is amended. No new matter is inserted into the application.

***Substitute Sequence Listing***

Enclosed herewith in full compliance to 37 C.F.R. §§1.821-1.825 is a substitute Sequence Listing to be inserted into the specification as indicated above. The substitute Sequence Listing in no way introduces new matter into the specification. Also submitted herewith in full compliance to 37 C.F.R. §§1.821-1.825 is a disk copy of the substitute Sequence Listing. The disk copy of the substitute Sequence Listing, file "2003-02-25 0020-4546P seq list.txt", is identical to the paper copy, except that it lacks formatting.

***Claim Objections and Rejection under 35 U.S.C. § 112, second paragraph***

In the Office Action dated August 16, 2002, the Examiner had both objected to and rejected claim 51 for reciting GenBank Accession numbers R54387 and T09073. The Examiner wrote that the

specification must be amended to include the incorporated material, and a declaration must be filed stating that the amendatory material consists of the same material incorporated by reference in the referencing application at the time of filing. In response to the Examiner's remarks, Applicants submitted a substitute Sequence Listing that included the GenBank sequences in the Reply under 37 C.F.R. § 1.111 filed on February 19, 2003. Applicants also amended claim 51 to refer to GenBank Accession No. R54387 as "SEQ ID NO:15" and GenBank Accession No. T09073 as "SEQ ID NO:16."

Upon further review of the specification, however, Applicants' representative noticed that GenBank Accession No: R54387 was not disclosed in the specification as filed. In order to correct the record, therefore, Applicants submit herewith a substitute Sequence Listing wherein the original SEQ ID NO:15 (which corresponded to GenBank Accession No: R54387) is deleted. However, GenBank Accession No: T09073 (originally referred to as SEQ ID NO:16 but now referred to as SEQ ID NO:15 in the substitute Sequence Listing) is maintained since GenBank Accession No: T09073 is disclosed in the specification as filed in Examples 1 and 2 (see pages 48-51 of the specification).

Furthermore, claim 51 is amended so that SEQ ID NO:15 (which corresponds to GenBank Accession No: T09073) is expressly excluded from the claim, and GenBank Accession No: R54387 is excluded from the claim by the language "said nucleic acid molecule does not consist of a polynucleotide consisting of:(i) nucleotide positions 1141 through 1170 or nucleotide positions 1287 through 1361 of SEQ ID NO:2; and (ii) nucleotide positions 488 and 816 of SEQ ID NO:4."

GenBank Accession No: R54387 has a region spanning more than 27 contiguous nucleotides which is 100% identical to positions 1141-1170 and 1287-1361 of SEQ ID NO:2. GenBank Accession No: R54387 has a region spanning more than 27 contiguous nucleotides which is 100% identical to positions 488-816 of SEQ ID NO:4. Conversely, there is no significant similarity between GenBank Accession No: R54387 and SEQ ID NO:10. Alignments of GenBank Accession No: R54387 with SEQ ID NOs:2, 4, and 10, respectively, are attached hereto.

Finally, a Declaration executed by Applicants' representative is attached hereto stating that the amendatory material consists of the same material incorporated by reference in the referencing application at the time of filing. Specifically, the Declaration states that SEQ ID NO:15 (which corresponds to GenBank Accession

No: T09073) is added to the specification in the substitute Sequence Listing but does not add new matter to the application since GenBank Accession No: T09073 is disclosed in the specification as filed.

Applicants respectfully submit that the present Supplemental Reply corrects the record, and that the objection and rejection under 35 U.S.C. § 112, second paragraph, of claim 51 is overcome.

**Conclusion**

Applicants respectfully submit that all of the outstanding issues precluding allowance of the present application have been addressed and overcome by Applicants, such that the instant claims are now in condition for allowance. The favorable action of allowance of all of the pending claims is respectfully requested.

If there are any minor matters precluding allowance of the application which may be resolved by a telephone discussion, the Examiner is respectfully requested to contact Kristi L. Rupert, Ph.D. (Reg. No. 45,702) at (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachments: Version with Markings to Show Changes Made;  
Substitute Sequence Listing and Disk;  
Alignment between GenBank Accession No: R54387 and  
SEQ ID NO:2;  
Alignment between GenBank Accession No: R54387 and  
SEQ ID NO:4;  
Alignment between GenBank Accession No: R54387 and  
SEQ ID NO:10;  
Declaration.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning on page 7, line 16 has been amended as follows:

First of all, the inventors have searched EST (Expressed Sequence Tags) database for DNA sequences encoding the amino acids relatively well conserved among previously reported Semaphorin genes. As a consequence, the DNA fragment T09073 (SEQ ID NO:15) was identified, which encodes, as a partial sequence, a sequence: Gln-Asp-Pro-Val0Cys-Ala-Trp (SEQ ID NO:12), similar to that consisting of seven amino acids extremely well conserved among Semaphorins (Gln(or Arg)-Asp-Pro-Tyr-Cys-Ala(or Gly)-Trp) (SEQ ID NO:13).

IN THE CLAIMS:

The following claim is amended:

Claim 51. (Five Times Amended) An isolated nucleic acid molecule consisting of a single-stranded polynucleotide consisting of at least 27 contiguous nucleotides of SEQ ID NO:2, 4, or 10 with

the proviso that

(a) said nucleic acid molecule does not consist of a polynucleotide consisting of at least 27 contiguous nucleotides disclosed in [SEQ ID NO:16 or] SEQ ID NO:15, and

(b) said nucleic acid molecule does not consist of a polynucleotide consisting of:

(i) nucleotide positions 1141 through 1170 or nucleotide positions 1287 through 1361 of SEQ ID NO:2; and

(ii) nucleotide positions 488 and 816 of SEQ ID NO:4.